HOBBS OCD

MAY 19 2016

OCD Hobbs

ATS-14-758

Form 3160-3
(March 2012)

RECEIVED

SECRETARY'S POTASH

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

Split Estate

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM 86710 - SL, NM 85933 - BHL

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. (316253)
Bilbrey 34 B2NC Federal Com #1H

2. Name of Operator Mewbourne Oil Company (14744)

9. API Well No.
30-025-43276

3a. Address
PO Box 5270
Hobbs, NM 88241

3b. Phone No. *(include area code)*
575-393-5905

10. Field and Pool, or Exploratory
BILBREY BASIN; BS (5695)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 185' FSL & 2030' FWL, Sec. 34 T21S R32E
At proposed prod. zone 330' FNL & 2100' FWL, Sec. 34 T21S R32E

UNORTHODOX LOCATION

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 34 T21S R32E

14. Distance in miles and direction from nearest town or post office*
33 miles east of Carlsbad, NM

12. County or Parish
Lea

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
185'

16. No. of acres in lease
NM 85933 - 160 acres
NM 86710 - 1,079.27 acres

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
120' - Bilbrey 34 Fed #001

19. Proposed Depth
15,333' - MD
10,723' - TVD

20. BLM/BIA Bond No. on file
NM-1693 nationwide, NMB-000919

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3753' - GL

22. Approximate date work will start*
06/15/2014

23. Estimated duration
60 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature Bradley Bishop
Name *(Printed/Typed)* Bradley Bishop
Date 4-28-14

Title

Approved by *(Signature)* /s/George MacDonell
Name *(Printed/Typed)*
Date MAY 13 2016

Title FIELD MANAGER
Office CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

Capitan Controlled Water Basin

KZ 05/24/16

See attached NMOCD Conditions of Approval

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Mewbourne Oil Company, Bilbrey 34/27 B2NC Fed Com #1H
Sec 34, T21S, R32E
SL: 185' FSL & 2030' FWL, Sec 34
BHL: 330' FNL & 2100' FWL, Sec 27

1. Geologic Formations

TVD of target	10760'	Pilot hole depth	NA
MD at TD:	20615'	Deepest expected fresh water:	250'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	840		
Top of Salt	1300		
Base of Salt	2950		
Delaware (Lamar)	4860	Oil/Gas	
Bell Canyon			
Cherry Canyon			
Manzanita Marker			
Brushy Canyon			
Bone Spring	8760	Oil/Gas	
1st Bone Spring Sand	9760		
2nd Bone Spring Sand	10400	Target Zone	
3rd Bone Spring Sand			
Abo			
Wolfcamp		Will Not Penetrate	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0'	~~865'~~ 900	13 3/8"	48	H40	STC	1.65	3.85	7.76
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.55
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	9.76
12.25"	4393'	4785'	9.625"	40	N80	LTC	1.24	2.31	47.02
8.75"	0'	2231'	7"	26	P110	BTC	6.72	8.59	1.87
8.75"	2231'	10283'	7"	26	P110	LTC	1.46	1.86	1.80
8.75"	10283'	11036'	5.5"	17	P110	BTC	1.34	1.90	3.11
8.75"	11036'	20615'	5.5"	17	P110	LTC	1.34	1.90	2.73
BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet				

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Is casing API approved? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	Y
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	Y
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	450	14.8	2.12	6.3	8	Class C + 0.005pps Static Free + 1% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
	200	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Inter.	800	12.5	2.12	11	10	Lead: Class C (35:65:4) + 5% Sodium Chloride +5#/sk LCM +0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Prod.	1485	11.2	2.97	18	16	Class C (60:40:0)+4% MPA5+1.2% BA10A+10#/sk BA90+5%A10+0.65%ASA301+1.5%SMS+1.2%R21

A copy of cement test will be available on location at time of cement job providing pump times & compressive strengths.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4285'	25%

4. Pressure Control Equipment

	Variance: None

BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	X	1500#
			Blind Ram	X	
			Pipe Ram	X	
			Double Ram		
			Other*		
8-3/4"	13-5/8"	~~3M~~ 5M	Annular	X	2500 ~~1500~~#
			Blind Ram	X	
			Pipe Ram	X	~~3000~~# 5006
			Double Ram		
			Other*		

*Specify if additional ram is utilized.

See COA 5M Required.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	~~865~~ 900	FW Gel	8.6-8.8	28-34	N/C
~~865~~	4785	Saturated Brine	10.0	28-34	N/C
4785	10283	Cut Brine	8.6-9.5	28-34	N/C
10283	20615	FW w/ Polymer	8.6-9.5	30-40	<20cc

See COA

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (10283') to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
X	Gamma Ray	10283' (KOP) to TD
	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5316 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
	H2S is present
X	H2S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe.
Will be pre-setting casing? If yes, describe.

Attachments
___ Directional Plan
___ Other, describe

13 ⅝" 2M BOPE & Closed Loop Equipment Schematic

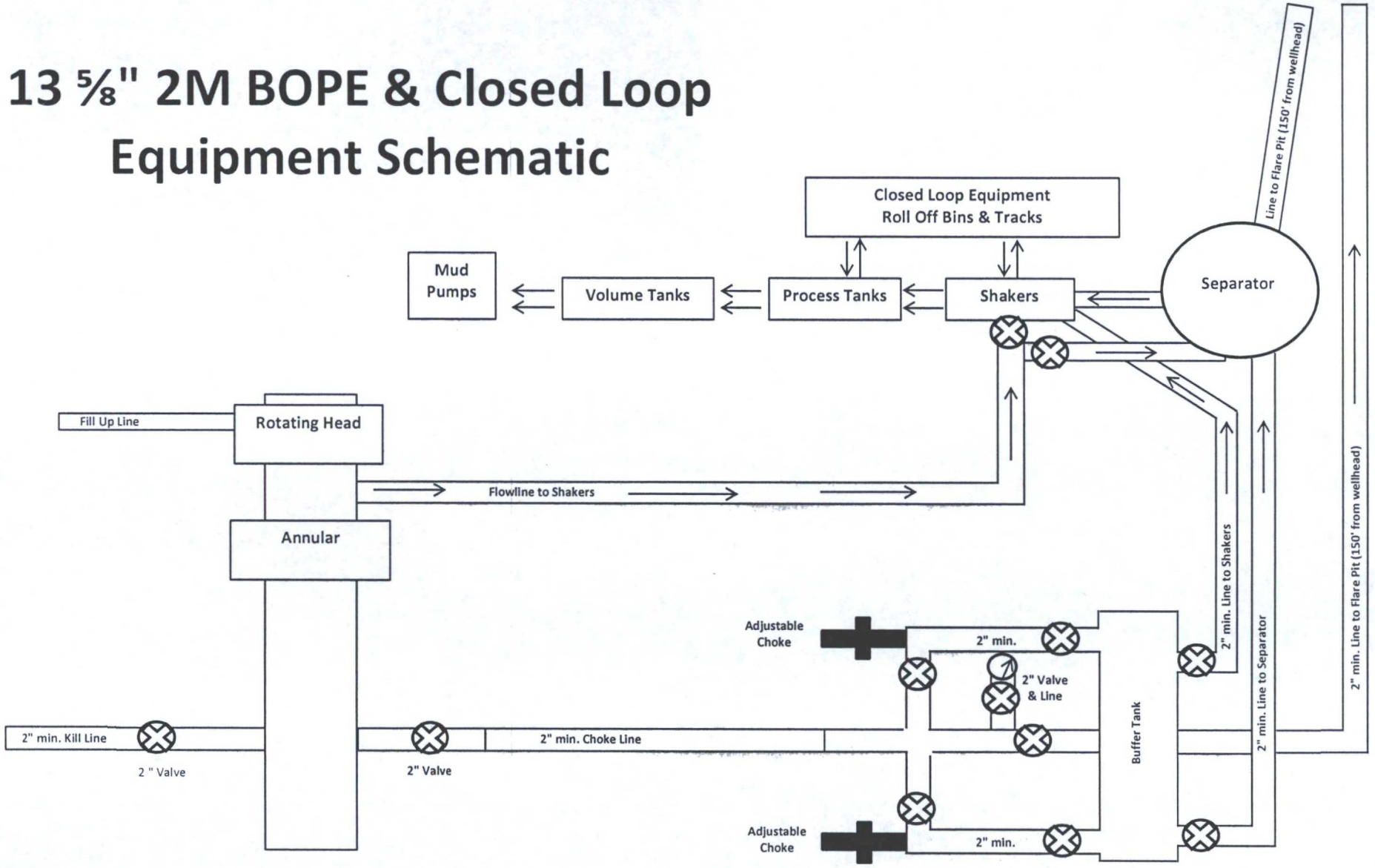

Exhibit 2A
Bilbrey 34 B2NC Fed Com #1H

11" 3M BOPE & Closed Loop Equipment Schematic

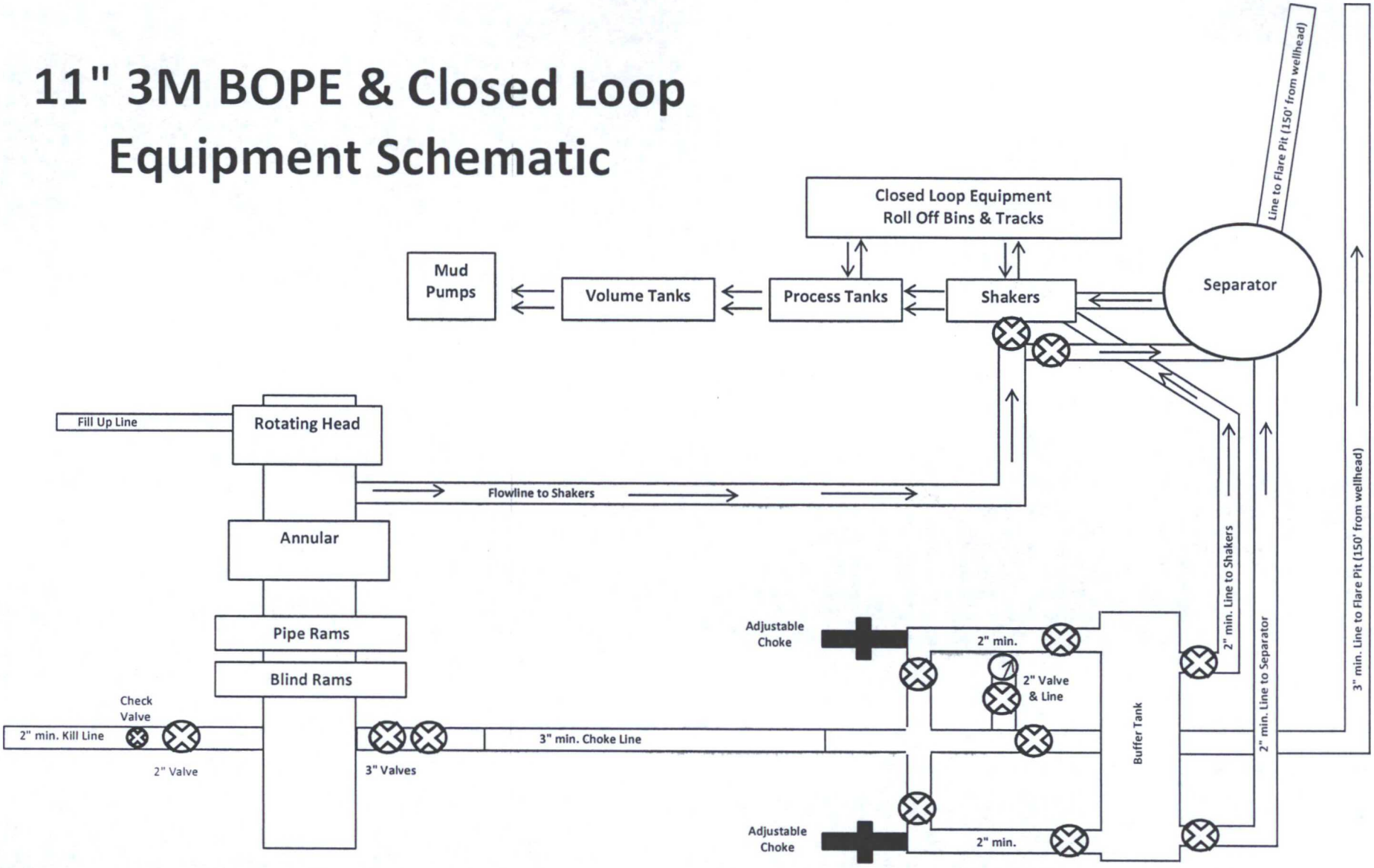

Exhibit 2
Bilbrey 34 B2NC Fed Com #1H

Note: All valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.

Notes Regarding Blowout Preventer

Mewbourne Oil Company

Bilbrey 34 B2NC Fed Com #1H
185' FSL & 2030' FWL (SHL)
Sec 34-T21S-R32E
Lea County

I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.

II. Blowout preventer and all fittings must be in good condition with a minimum 3000 psi working pressure on 9 5/8" and 7" casing.

III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 3000 psi working pressure.

IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.

V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

H2S Diagram

Closed Loop Pad Dimensions 280' x 340'

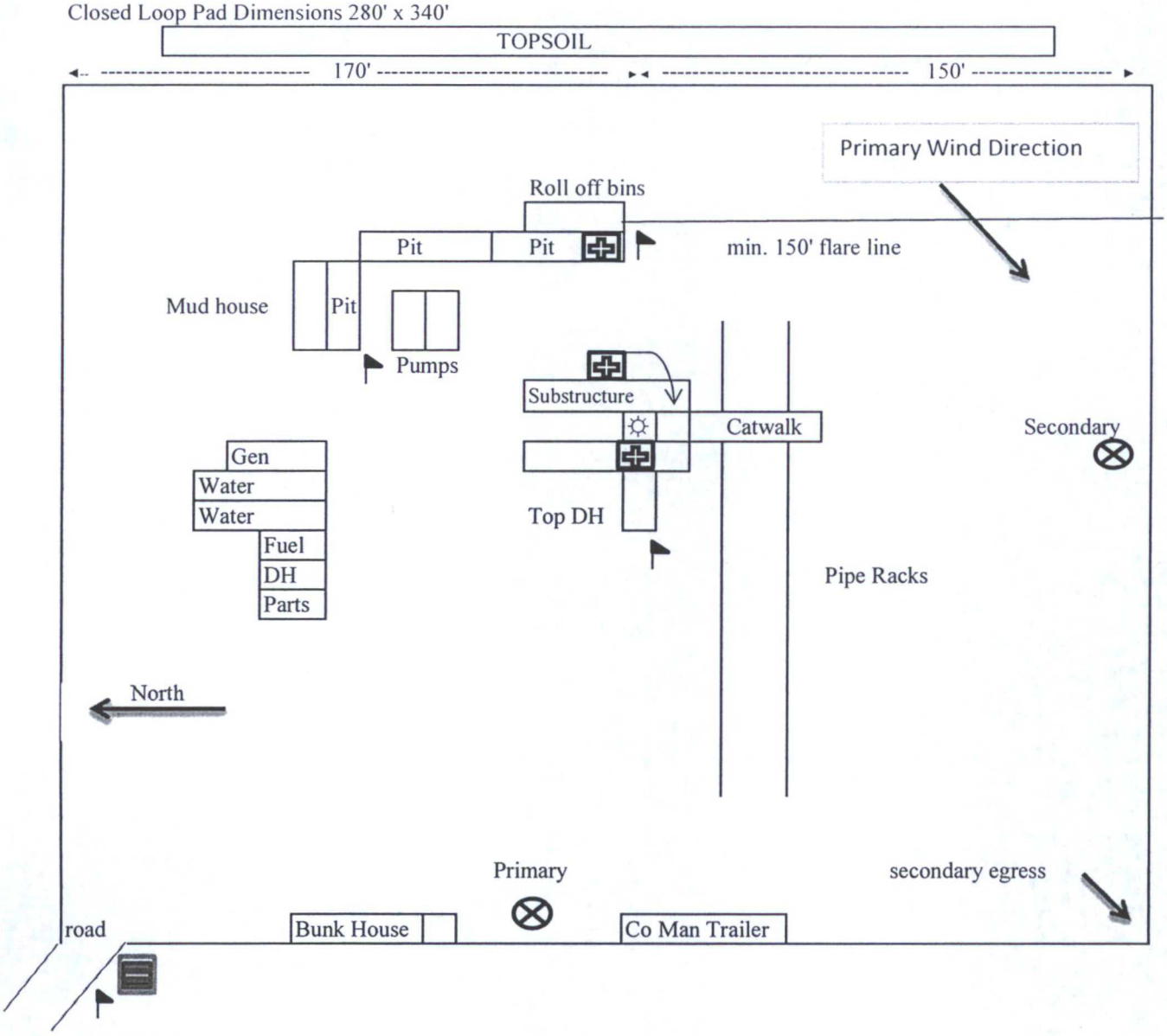

Exhibit 5

= Warning Signs

= Wind Markers

= H2S Monitors

= Safety Stations

Mewbourne Oil Company
Bilbrey 34 B2NC Fed Com #1H
185' FSL & 2030' FWL
Sec. 34 T21S R32E
Lea County, NM